

# LANL shoots for the moon in search for life on Europa

September 9, 2018

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Extremely cold and bombarded by intense radiation, Jupiter's moon Europa seems like one of the last places in the solar system to look for life. But Europa could hold organic material yet undiscovered and an ocean hiding deep below its thick, frozen crust.

To help NASA with its interplanetary research, Los Alamos National Laboratory is designing a prototype instrument capable of withstanding the extreme conditions on Europa. It is proposed for an upcoming mission to Jupiter's moon. The goal is to deepen understanding of this tantalizing world and extend the search for life in the solar system.

Los Alamos scientists have plenty of history helping NASA explore another world for evidence of habitability and ultimately of life. In the early 2000s the first neutron spectrometer — developed by the laboratory — orbited Mars, discovering and mapping its vast water resources. More recently they designed ChemCam, a combination of lasers, spectrometers, a telescope, and a camera that piggybacked on the Mars Curiosity rover to study Martian rocks and helped find evidence for a habitable Mars in the past.

This story first appeared in [Santa Fe New Mexican](#).

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